

Appeal from a decision of the New Mexico State Office, Bureau of Land Management, rejecting simultaneous oil and gas lease offer NM 63577 in its entirety because the described lands were deemed to be within a known geologic structure.

Set aside and referred for a hearing.

1. Oil and Gas Leases: Known Geologic Structure--Oil and Gas Leases: Noncompetitive Leases

Under 30 U.S.C. | 226(b) (1982), public domain lands within the KGS of a producing oil and gas field shall be leased to the highest responsible qualified bidder by competitive bidding. The Department has no discretion to issue noncompetitive leases for KGS lands. Therefore, if the lands described in a noncompetitive lease offer are within a KGS, a noncompetitive lease offer for those lands must be rejected.

2. Oil and Gas Leases: Known Geologic Structure--Oil and Gas Leases: Noncompetitive Leases

A KGS, as defined by 43 CFR 3100.0-5(l), is technically the trap in which an accumulation of oil or gas has been discovered by drilling and determined to be productive, the limits of which include all acreage that is presumptively productive.

3. Evidence: Preponderance--Oil and Gas Leases: Generally--Oil and Gas Leases: Known Geologic Structure

A person challenging a Departmental determination that lands are within a KGS has the burden of showing by a preponderance of the evidence that the determination is in error. To establish the preponderance of the evidence means to prove that something is more likely so than not; in other words, "the preponderance of the evidence" means such evidence, when considered and compared with the opposite to it, has more convincing force and produces in your mind's belief that what is sought to be proved is more likely to be true than not.

4. Delegation of Authority--Evidence: Preponderance--Hearings--Oil and Gas Leases: Generally--Oil and Gas Leases: Known Geologic Structure

The Secretary of the Interior has traditionally delegated the responsibility for determining the existence and extent of a KGS to his technical experts in the field. When a technical expert makes a determination that lands qualify for inclusion in a KGS, the Secretary is entitled to rely upon his reasoning. On the other hand, the determination of whether the lands are properly included in a KGS is largely dependent upon factual interpretation, and when there is a material issue of fact determinative of the issues posed, this Board has the discretionary authority to order a hearing on the matter before an Administrative Law Judge pursuant to 43 CFR 4.415.

APPEARANCES: Harry Ptasynski, Casper, Wyoming, pro se; Margaret C. Miller, Esq., Office of the Field Solicitor, Santa Fe, New Mexico, for the Bureau of Land Management.

OPINION BY ADMINISTRATIVE JUDGE MULLEN

Harry Ptasynski (Ptasynski) has appealed from a February 24, 1987, decision of the New Mexico State Office, Bureau of Land Management (BLM), rejecting simultaneous oil and gas lease offer NM 63577 because the lands described in that offer are within a known geologic structure (KGS).

Ptasynski was the first priority applicant for Parcel No. 187 in the June 3, 1985, simultaneous oil and gas lease drawing, the results of which were posted on August 1, 1985. The parcel was assigned file number NM 63577.

On October 2, 1985, the Chief, Mineral Leasing Unit 1, New Mexico State Office, BLM, sent a memorandum to the Albuquerque District Office, BLM, seeking a determination of whether the NM 63577 lands were on a KGS. On October 30, 1985, the District Office advised the State Office that the pending lease offer should not be acted upon until completion of a KGS review then underway. A subsequent memorandum from the District Office, dated September 26, 1986, advised the State Office that the tract should not be leased at that time because the tract was within a KGS study area. On February 18, 1987, the District Office issued a KGS determination memorandum stating that, effective January 23, 1987, certain lands, including those described in NM 63577, were within the KGS later identified as the "Unnamed Addition to the Bisti Known Geologic Structure." This determination was the basis for the February 24, 1987, State Office decision rejecting Ptasynski's offer.

[1] The statutory provision applicable to this case is found at 30 U.S.C. | 226(b) (1982), which provides that public domain lands within the "known geological structure of a producing oil and gas field

* * *

shall be leased to the highest responsible qualified bidder by competitive bidding." ^{1/} The Department has no discretion to issue noncompetitive leases for KGS lands. McDonald v. Clark, 771 F.2d 460, 464 (10th Cir. 1985); McDade v. Morton, 353 F. Supp. 1006, 1010 (D.D.C. 1973), aff'd, 494 F.2d 1156 (D.C. Cir. 1974). Therefore, if the lands described in a noncompetitive lease offer are within a KGS, the lease offer for those lands must be rejected.

[2] A KGS, as defined by Departmental regulations, is "technically the trap in which an accumulation of oil or gas has been discovered by drilling and determined to be productive, the limits of which include all acreage that is presumptively productive." 43 CFR 3100.0-5(l). The decision rejecting appellant's offer stated that the lands contained in the offer were within a KGS, but did not identify the KGS or otherwise inform appellant of the basis for the determination. It did, however, inform appellant that if he wished "to communicate with the District Manager concerning the KGS determination" he could do so, and gave the address and telephone number at which he could be reached. Appellant apparently did so.

Appellant set forth the basis for his challenge of the KGS determination in a statement of reasons (SOR) filed on April 21, 1987. Appellant has no argument with the BLM interpretation of the regional geology or the stratigraphy of the Gallup sandstone, but argues that the Bisti field production comes only from the bar facies, identified as the Marye, Huerfano, and Carson sands. He argues that southward from the Bisti field the sands become impermeable, forming the updip seal of the Bisti trap. According to appellant's geologic interpretation, the sands underlying the lands he seeks are tight and impermeable and thus cannot be considered as a part of the producing reservoir.

Ptasynski agrees with the statement in the BLM Mineral Report dated February 3, 1987, titled Justification of an Unnamed Addition to the Bisti Known Geologic Structure (BLM Mineral Report) that the trapping mechanism in the Gallup is primarily stratigraphic, but finds fault with the next statement that productivity is determined by the presence of fractures. He notes that the basis for this finding was the evidence from the Rio Puerco field, and states that the Rio Puerco field is in an entirely different geologic setting. Ptasynski points to the difference in the regional dip of the producing formations as evidence of a substantial deformation at the Rio Puerco field not present at the Bisti field, and concludes that the lack of deformation dictates the lack of a fracture system at the Bisti field. As further support for his conclusion, appellant notes that none of the core logs from four wells in local proximity to the tract in question reported any

^{1/} Subsequent to the decision on appeal the Federal Onshore Oil and Gas Leasing Reform Act of 1987 (FOOGLRA), P.L. 100-203, 101 Stat. 1330-256, was enacted. This act substantially changed the procedure for issuing oil and gas leases, and the issue in this case has been mooted for all future applications. All references in this decision are to the law in effect at the time of the BLM decision on appeal.

indication of fractures, even though it is the routine practice to describe any fractures noted. He concludes that there is "absolutely no evidence that fractures exist in the disputed area" (SOR at 2, emphasis in original).

Appellant also examines other criteria used by BLM in making its determination, strongly noting his objection to the use of dry holes as a basis for a KGS determination, and setting forth the result of drill logs for the dry holes referred to in the BLM Mineral Report. Noting the difference between permeability and porosity, he argues that the test results from these wells clearly demonstrate that the producing formation in the area of the subject land is not sufficiently permeable to support a determination that the lease offer contains lands properly found to be within a KGS. He agrees with the statement in the BLM Mineral Report that "[d]ue to apparent low porosity and permeability, enhanced or natural fractures are believed to be critical for hydrocarbon production," but argues that there is absolutely no evidence of fractures in the area of the subject tract.

In conclusion, appellant contends he has demonstrated that none of the dry holes within and immediately adjacent to the undefined addition to the Bisti KGS has shown a capability to produce oil or gas, based upon a reason-able interpretation of the physical characteristics of the geologic formations underlying that addition.

BLM has filed an answer to appellant's statement of reasons. In its answer, BLM argues that the parameters used in the addition to the Bisti KGS are not similar to those in the Bisti Field. Admitting that the Bisti Field produces from the bar facies, BLM notes its determination that portions of the formation other than the bar facies are productive. BLM argues that production from the Henry Monster 1, Bryan Simpson 1, Federal 33-29, and numerous other wells prove the contention that production is independent of Bisti bar complex wells. Admitting the correctness of appellant's description of the gradation of the bar facies into the backbar facies in the area in question, BLM states that the presence of the offshore facies in the area in question is important to its determination that the Gallup sandstone is properly considered to be presumptively productive.

BLM postulates that the propensity of the formation to fracture is controlled by the presence of carbonate and silica and the highly inter-bedded lithography, not the dip of the formation. It notes that the Rio Puerco, Galivan, Canada Ojitos, and Verdi fields, which produce from the same formation, are in fractured reservoirs, and that the controlling factor is the fine-grained interbedded shales and sandstones with carbonate cement and not the dip of the beds. ^{2/} BLM notes that significant evidence of microfracturing was presented in a hearing before the New Mexico Oil and Gas Commission, and this evidence was also considered when making the KGS determination.

^{2/} BLM notes that because the fields are fracture controlled, dry wells have been drilled 100 feet from producing wells, but that, on a large scale, the area is properly considered to be productive.

In response to appellant's arguments that the porosity of the formation in the area in question does not support a finding that a commercial well could be drilled, BLM notes that it did not consider economics as a factor in its determination, because it is not required to have the land in a KGS producing oil and gas in commercial quantities.

Appellant filed a response to BLM's answer taking issue with the BLM findings. He argues that the BLM finding that fracturing was associated with carbonate and silica and fine-grained highly interbedded lithography wrongly associates the area in question with a completely different producing area. He argues that the structural setting of the Rio Puerco field is vastly different from that at the Bisti field. Citing the same treatise used by BLM in its determination, appellant notes that the regional uplift in close proximity to the Rio Puerco field caused that field to be folded, faulted, and subsequently fractured. He also submits a map of the Galivan-Mancos field showing that field to have areas of steep dip as well as areas of gently dipping beds. The presence of abrupt structural changes not present in the Bisti field differentiates the Galivan-Mancos field from the gently dipping Bisti field, according to appellant.

Appellant reiterates his opinion that there is absolutely no evidence of the presence of fractures in the Bisti area and objects to the BLM determination that two core analyses furnished by him were not statistically valid samples for the KGS. He notes that he relied on four wells not two, and that none of the readily available reports for the four wells has any mention of fracturing. Appellant insists that the dry holes in the area represent areas designated as within the KGS which are incapable of production following extensive efforts to complete the wells. Appellant also argues that, on the basis of log calculations, the area is proven nonproductive. Appellant also argues that the core samples from the Bisti areas show the rocks in the Bisti area to be less brittle than those in the other areas mentioned by BLM, thus making that area less susceptible to fracturing. He advances that the bottom hole pressures in the dry holes also point to the absence of productivity. Appellant concludes that there is nothing which supports the BLM determination that the lands underlying lease application NM 63577 were within a KGS.

[3] A person challenging a Departmental determination that lands are within a KGS has the burden of showing by a preponderance of the evidence that the determination is in error. Bender v. Clark, 744 F.2d 1424 (10th Cir. 1984); Carolyn J. McCutchin, 93 IBLA 134 (1986). The preponderance of the evidence standard has been defined as:

To establish the preponderance of the evidence means to prove that something is more likely so than not so; in other words, "the preponderance of the evidence" means such evidence, when considered and compared with the opposite to it, has more convincing force and produces in your mind's belief that what is sought to be proved is more likely to be true than not true.

Thunderbird Oil Corp., 91 IBLA 195, 201 (1986), 3/ quoting South-East Coal Co. v. Consolidated Coal Co., 434 F.2d 767, 778 (6th Cir. 1970).

[4] The Secretary of the Interior has traditionally delegated the responsibility for determining the existence and extent of a KGS to his technical experts in the field. When a technical expert makes a determination that lands qualify for inclusion in a KGS, the Secretary is entitled to rely upon his reasoning. Thunderbird Oil Corp., *supra* at 202; Champlin Petroleum Co., 86 IBLA 37, 40 (1985). On the other hand, the determination of whether the lands are properly included in a KGS is largely dependent upon factual interpretation, and when there is a material issue of fact which is determinative of the issues posed, this Board has the discretionary authority to order a hearing on the matter before an Administrative

Law Judge pursuant to 43 CFR 4.415. See Lloyd Chemical Sales, 82 IBLA 182 (1984).

Both sides admit that the trapping mechanism in the Gallup is primarily stratigraphic, but there is a strong difference of opinion regarding the existence of fractures which, according to BLM, would be critical for hydrocarbon production from the geologic structure. After review of the file and pleadings filed by the respective parties we are of the opinion that a serious question remains as to the existence of these critical structures.

BLM based its finding on evidence from the Rio Puerco field, and appellant argues that the Rio Puerco field is in an entirely different geologic setting, pointing to the difference in the regional dip of the producing formations at the two fields as evidence of substantial deformation at the Rio Puerco field not present at the Bisti field. The lack of deformation could indicate a lack of a fracture system. BLM states that the presence of the offshore facies in the area in question is important to its determination that the Gallup sandstone is properly considered to be presumptively productive and that, in the area in question, fracturing is associated with carbonate and silica and fine-grained highly interbedded lithography.

In response appellant argues BLM wrongly associates the area in question with a completely different producing area. He argues that the structural setting of the Rio Puerco field is vastly different than that at the Bisti field. Citing the same treatise used by BLM, appellant notes that the regional uplift in close proximity to the Rio Puerco field caused that field to be folded, faulted and subsequently fractured. He also submits a map of the Galivan-Mancos field showing that field to have areas of steep dip as well as areas of gently dipping beds. The presence of abrupt structural changes not present in the Bisti field differentiates the Galivan-Mancos field from the gently dipping Bisti field, according to appellant.

3/ Aff'd sub nom. Planet Corp. v. Hodel, CV No. 86-679 HB (D.N.M. May 6, 1987.)

Appellant submitted well reports in support of his contention that there is no evidence of the presence of fractures in the area, arguing that none of the readily available reports for the four wells has any mention of fracturing. Appellant insists that the dry holes in the area represent areas designated as within the KGS which are incapable of production following extensive efforts to complete the wells. Appellant also argues that the core samples from the Bisti areas show the rocks in the Bisti area to be less brittle than those in the other areas mentioned by BLM, thus making that area less susceptible to fracturing.

There can be little doubt that the existence of fracturing is material to the BLM determination. There is also little doubt that appellant has raised a serious question of fact regarding the existence of fracturing within the Unnamed Addition to the Bisti Known Geologic Structure. In these circumstances, we deem it appropriate to refer the matter for a fact-finding hearing.

Therefore, pursuant to the authority delegated to the Board of Land Appeals by the Secretary of the Interior, 43 CFR 4.1, the decision appealed from is set aside and the case file is referred to the Hearings Division for a hearing. At the hearing the appellant will bear the burden of proving by the preponderance of the evidence that there is no trap in which an accumulation of oil or gas has been discovered by drilling and determined to be productive within the lands described in simultaneous oil and gas lease offer NM 63577. The decision of the Administrative Law Judge shall be final for the Department in the absence of a timely appeal by a party adversely affected.

R. W. Mullen
Administrative Judge

I concur:

David L. Hughes
Administrative Judge